

Patentin PCT EASY BR75585.ST25
SEQUENCE LISTING

<110> L'OREAL

<120> Use of aspartic proteases in cosmetics and therapeutics

<130> BR75585/CR/PLC/cr

<150> FR 02 08613

<151> 2002-07-09

<160> 36

<170> PatentIn version 3.1

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 Thr Lys Leu Arg Phe Leu Lys Glu Ser Leu Arg Gly Glu Ala Leu Gly
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 65 70 75 80
 Lys Glu Ala Leu Leu Lys Ala Phe Gly Val Pro Gly Ala Ala Pro Ser
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 His Leu Pro Lys Glu Ile Val Phe Ala Asn Ser Met Gly Lys Gly Tyr
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 Tyr Leu Lys Gly Lys Ile Gly Lys Val Pro Val Arg Phe Leu Val Asp
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 145 150 155 160
 Val Ala Asn Gly Ala Glu Met Lys Ile Leu Gly Val Trp Asp Thr Ala
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 Val Ser Leu Gly Lys Leu Lys Leu Lys Ala Gln Phe Leu Val Ala Asn
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 Ala Ser Ala Glu Glu Ala Ile Ile Gly Thr Asp Val Leu Gln Asp His
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 Asn Ala Ile Leu Asp Phe Glu His Arg Thr Cys Thr Leu Lys Gly Lys
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Leu Cys Gly Phe Leu Phe Leu Ala Trp Val Ala Ala Glu Val Pro Glu
65 70 75 80
Glu Ser Ser Arg Met Ala Gly Ser Gly Ala Arg Ser Glu Glu Gly Arg
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Arg Gln His Ala Phe Val Pro Glu Pro Phe Asp Gly Ala Asn Val Val
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Pro Asn Leu Trp Leu His Ser Phe Glu Val Ile Asn Asp Leu Asn His
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Trp Asp His Ile Thr Lys Leu Arg Phe Leu Lys Glu Ser Leu Arg Gly
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Glu Ala Leu Gly Val Tyr Asn Arg Leu Ser Pro Gln Asp Gln Gly Asp
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Tyr Gly Thr Val Lys Glu Ala Leu Leu Lys Ala Phe Gly Val Pro Gly
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Ala Ala Pro Ser His Leu Pro Lys Glu Ile Val Phe Ala Asn Ser Met
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Phe Leu Val Asp Ser Gly Ala Gln Val Ser Val Val His Pro Asn Leu
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225 230 235 240
Asn Val Val Lys Val Ala Asn Gly Ala Glu Met Lys Ile Leu Gly Val
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Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys Leu Lys Ala Gln Phe
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Leu Val Ala Asn Ala Ser Ala Glu Glu Ala Ile Ile Gly Thr Asp Val
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Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu His Arg Thr Cys Thr
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Leu Lys Gly Lys Lys Phe Arg Leu Leu Pro Val Gly Gly Ser Leu Glu
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 His Pro Asn Leu Trp Glu Glu Val Thr Asp Gly Asp Leu Asp Thr Leu
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 Gln Pro Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met Lys
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 Ile Leu Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys Leu
 65 70 75 80
 Lys Ala Gln Phe Leu Val Ala Asn Ala Ser Ala Glu Glu Ala Ile Ile
 85 90 95
 Gly Thr Asp Val Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu His
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<220>
 <223> SC140 primer for PCR amplification of cDNA fragments encoding the complete SASPase

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 <212> DNA
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35 40 45
Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met Lys Ile Leu
50 55 60
Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys Leu Lys Ala
65 70 75 80
Gln Phe Leu Val Ala Asn Ala Ser Ala Glu Glu Ala Ile Ile Gly Thr
85 90 95
Asp Val Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu His Arg Thr
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Cys Thr Leu Lys Gly Lys Lys Phe Arg Leu Leu Pro Val Gly Gly Ser
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ctg cac agc ttt gaa gtc atc aat gac ctc aac cat tgg gac cat atc Leu His Ser Phe Glu Val Ile Asn Asp Leu Asn His Trp Asp His Ile 35 40 45	144
acc aag cta agg ttc ctg aaa gag tcc ctc aga gga gag gcc ctg ggt Thr Lys Leu Arg Phe Leu Lys Glu Ser Leu Arg Gly Glu Ala Leu Gly 50 55 60	192
gtc tac aat agg ctc agt ccc cag gac cag gga gac tat ggg act gtg Val Tyr Asn Arg Leu Ser Pro Gln Asp Gln Gly Asp Tyr Gly Thr Val 65 70 75 80	240
aaa gag gcc ctc ctg aag gcc ttt ggg gtc cct ggg gct gcc ccc agc Lys Glu Ala Leu Lys Ala Phe Gly Val Pro Gly Ala Ala Pro Ser 85 90 95	288
cac ctg ccc aaa gag atc gtc ttt gcc aac agc atg ggt aag ggc tac His Leu Pro Lys Glu Ile Val Phe Ala Asn Ser Met Gly Lys Gly Tyr 100 105 110	336
tat ctc aag ggg aag att ggc aaa gtg ccc gtg agg ttc ctg gtg gac Tyr Leu Lys Gly Lys Ile Gly Lys Val Pro Val Arg Phe Leu Val Asp 115 120 125	384
tct ggg gcc cag gtc tct gtg gtc cac cca aac ttg tgg gag gag gtc Ser Gly Ala Gln Val Ser Val Val His Pro Asn Leu Trp Glu Glu Val 130 135 140	432
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gcg agt gcc gag gaa gcc atc att ggc act gat gtg ctc cag gac cac Ala Ser Ala Glu Glu Ala Ile Ile Gly Thr Asp Val Leu Gln Asp His 195 200 205	624
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ctg gag ctc ata gag gag gac ccc tcc tca gaa gaa ggg cgg cag gag Leu Glu Leu Ile Glu Glu Asp Pro Ser Ser Glu Glu Gly Arg Gln Glu 245 250 255	768

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777

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Glu Gln Ala Thr Ala Leu Pro Ala Pro Ala Val Ser Gln Pro
20 25 30
acc gcg cct gct ccc tcc tgc ttg ccc aag gcc gga caa gtc atc ccc 144
Thr Ala Pro Ala Pro Ser Cys Leu Pro Lys Ala Gly Gln Val Ile Pro
35 40 45
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Thr Leu Leu Arg Glu Ala Pro Phe Ser Ser Val Ile Ala Pro Thr Leu
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Leu Cys Gly Phe Leu Phe Leu Ala Trp Val Ala Ala Glu Val Pro Glu
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Glu Ser Ser Arg Met Ala Gly Ser Gly Ala Arg Ser Glu Glu Gly Arg
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Arg Gln His Ala Phe Val Pro Glu Pro Phe Asp Gly Ala Asn Val Val
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Pro Asn Leu Trp Leu His Ser Phe Glu Val Ile Asn Asp Leu Asn His
115 120 125
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Trp Asp His Ile Thr Lys Leu Arg Phe Leu Lys Glu Ser Leu Arg Gly
130 135 140
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Glu Ala Leu Gly Val Tyr Asn Arg Leu Ser Pro Gln Asp Gln Gly Asp
145 150 155 160
tat ggg act gtg aaa gag gcc ctc ctg aag gcc ttt ggg gtc cct ggg 528
Tyr Gly Thr Val Lys Glu Ala Leu Leu Lys Ala Phe Gly Val Pro Gly
165 170 175
gct gcc ccc agc cac ctg ccc aaa gag atc gtc ttt gcc aac agc atg 576
Ala Ala Pro Ser His Leu Pro Lys Glu Ile Val Phe Ala Asn Ser Met
180 185 190
ggg aag ggc tac tat ctc aag ggg aag att ggc aaa gtg ccc gtg agg 624
Gly Lys Gly Tyr Tyr Leu Lys Gly Lys Ile Gly Lys Val Pro Val Arg
195 200 205

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cac cca aac ttg tgg gag gag gtc act gat ggc gat ctg gac acc ctg His Pro Asn Leu Trp Glu Glu Val Thr Asp Gly Asp Leu Asp Thr Leu 35 40 45	144
cag ccc ttt gag aat gtg gta aag gtg gcc aat ggt gct gaa atg aag Gln Pro Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met Lys 50 55 60	192
atc ctg ggt gtc tgg gat aca gcg gtg tcc cta ggc aag ctg aag ctg Ile Leu Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys Leu 65 70 75 80	240

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85 90 95	
ggc act gat gtg ctc cag gac cac aat gct atc ctg gac ttt gag cac	336
Gly Thr Asp Val Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu His	
100 105 110	
cgc aca tgc acc ctg aaa ggg aag aag ttt cgc ctt ctg cct gtg gga	384
Arg Thr Cys Thr Leu Lys Gly Lys Phe Arg Leu Leu Pro Val Gly	
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Glu Gln Ala Thr Ala Leu Pro Ala Ser Ala Pro Ala Val Ser Gln Pro	
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 Val Arg Phe Leu Val Asp Ser Gly Ala Gln Val Ser Val Val His Pro
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 aac ttg tgg gag gag gtc act gat ggc gat ctg gac acc ctg cag ccc 144
 Asn Leu Trp Glu Glu Val Thr Asp Gly Asp Leu Asp Thr Leu Gln Pro
 35 40 45
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 Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met Lys Ile Leu
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 Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys Leu Lys Ala
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 Gln Phe Leu Val Ala Asn Ala Ser Ala Glu Glu Ala Ile Ile Gly Thr
 85 90 95
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 Asp Val Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu His Arg Thr
 100 105 110
 tcg acc ctg aaa ggg aag aag ttt cgc ctt ctg cct gtg gga ggg tcc 384
 Ser Thr Leu Lys Gly Lys Lys Phe Arg Leu Leu Pro Val Gly Gly Ser
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35      40      45
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50      55      60
Leu Gln Pro Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met
65      70      75      80
Lys Ile Leu Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys
85      90      95
Leu Lys Ala Gln Phe Leu Val Ala Asn Ala Ser Ala Glu Glu Ala Ile
100     105     110
Ile Gly Thr Asp Val Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu
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His Arg Thr Cys Thr Leu Lys Gly Lys Lys Phe Arg Leu Leu Pro Val
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Lys Glu Ile Val Met Gly Lys Gly Tyr Tyr Leu Lys Gly Lys Ile Gly
165     170

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50 55 60
ctg cag ccc ttt gag aat gtg gta aag gtg gcc aat ggt gct gaa atg 240
Leu Gln Pro Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met
65 70 75 80
aag atc ctg ggt gtc tgg gat aca gcg gtg tcc cta ggc aag ctg aag 288
Lys Ile Leu Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys
85 90 95
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Leu Lys Ala Gln Phe Leu Val Ala Asn Ala Ser Ala Glu Glu Ala Ile
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att ggc act gat gtg ctc cag gac cac aat gct atc ctg gac ttt gag 384
Ile Gly Thr Asp Val Leu Gln Asp His Asn Ala Ile Leu Asp Phe Glu
115 120 125
cac cgc aca tgc acc ctg aaa ggg aag aag ttt cgc ctt ctg cct gtg 432
His Arg Thr Cys Thr Leu Lys Gly Lys Lys Phe Arg Leu Leu Pro Val
130 135 140
gga ggg tcc ctg gaa gat gag ttt gac ctg gag ctc ata gag gag gac 480
Gly Gly Ser Leu Glu Asp Glu Phe Asp Leu Glu Ile Glu Glu Asp
145 150 155 160
ccc tcc tca gaa gaa ggg cgg cag gag cta tcc cac 516
Pro Ser Ser Glu Glu Gly Arg Gln Glu Leu Ser His
165 170

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<213> Homo sapiens

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20 25 30
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35 40 45
Val His Pro Asn Leu Trp Glu Val Thr Asp Gly Asp Leu Asp Thr
50 55 60
Leu Gln Pro Phe Glu Asn Val Val Lys Val Ala Asn Gly Ala Glu Met
65 70 75 80
Lys Ile Leu Gly Val Trp Asp Thr Ala Val Ser Leu Gly Lys Leu Lys
85 90 95

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 Lys Glu Ile Val Met Gly Lys Gly Tyr Tyr Leu Lys Gly Lys Ile Gly
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 Lys Val Pro Val Arg Phe Leu Val Asp Ser Gly Ala Gln Val Ser Val
 35 40 45
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 Val His Pro Asn Leu Trp Glu Glu Val Thr Asp Gly Asp Leu Asp Thr
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Thr Lys Leu Arg Phe Leu Lys Glu Ser Leu Arg Gly Glu Ala Leu Gly
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Val Tyr Asn Arg Leu Ser Pro Gln Asp Gln Gly Asp Tyr Gly Thr Val
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Lys Glu Ala Leu Leu Lys Ala Phe Gly Val Pro Gly Ala Ala Pro Ser
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 His Leu Pro Lys Glu Ile Val Met Gly Lys Gly Tyr Tyr Leu Lys Gly
 100 105 110
 Lys Ile Gly Lys Val Pro Val Arg Phe Leu Val Asp Ser Gly Ala Gln
 115 120 125
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